

~~B8~~ 69. (Amended) The system as defined in claim [68] 53, wherein said circumferential groove is .0625" to .1875" wide and .0625" to .1875" deep.

REMARKS

Filed concurrently herewith is a Request for a Two Month Extension of Time which extends the shortened statutory period for response to July 24, 1998. Accordingly, applicant respectfully submits that this response is being timely filed.

The Examiner's Action dated February 24, 1998 has been received and its contents carefully noted. In view thereof, claims 17, 23, 24, 48, 68, 73 and 74 have been cancelled with claims 1, 18, 20, 22, 33, 49, 53 and 69 being amended in order to better define that which applicant regards as the invention. Accordingly, claims 1-12, 18-22, 25-30, 34-43, 49-63 and 69-72 are presently pending in the present application.

Initially, applicant wishes to thank Examiner Yan for the courtesy extended to applicant's representative during the personal interview conducted on July 22, 1998. During such interview, applicant noted and pointed out to the Examiner that the subject matter of dependent claims 17, 48 and 68 was not previously fully considered by the Examiner in the prior Office Action. Further, applicant provided the Examiner with a proposed amendment incorporating the subject matter of dependent claims 17, 48 and 68 into their respective independent claims which applicant's believes places these claims in proper condition for allowance. The Examiner went on to state that upon filing of a response, the Examiner will reconsider whether or not to withdraw the finality of the previous Office Action.

In addition to the discussion of independent claims 1, 33 and 53, applicant pointed out amendments to independent claim 22 which are believed

to place this proper condition for allowance. After further discussion with the Examiner, it was agreed to further amend independent claim 22 to include a structure which supports a three-dimensional laser engraving step set forth in the method. Accordingly, as noted during the personal interview, such limitations are clearly not found in the prior art of record and consequently, it is respectfully submitted that independent claim 22 is likewise believed to be proper condition for allowance.

Referring now to the Examiner's Action, and particularly page two thereof, claims 1, 2, 8, 9, 12, 17-22, 25, 33, 34, 48-54, 60, 63 and 68-72 have been rejected as being unpatentable over U.S. Patent No. 3,731,620 issued to Klemmer in view of U.S. Patent No. 4,144,613 issued to Julian. This rejection is respectfully traversed in that the combination proposed by the Examiner neither discloses nor remotely suggest that which is presently set forth by applicant's claimed invention.

As discussed during the personal interview, each of independent claims 1, 33 and 53 have been amended in order to include limitations previously set forth in dependent form. Particularly, each of these claims have been amended to recite a plurality of radially extending passages provided in the core intersecting the axially extending bore and providing a circumferential groove formed in a surface of the core interconnecting the radially extending passages. As can be appreciated from the Julian reference, this reference which is utilized in connection with the positioning of printing sleeves on a core fails to include the circumferential groove formed in an outer surface of the core which interconnects the plurality of radially extending passages in order to form a more coherent buffer between the sleeve and the core on which the sleeve is being positioned. As noted with printing sleeves, the material from which the sleeve is manufactured is often more resilient than the

material utilized in forming an embossing roll in that sleeves utilized in a printing operation do not generally emboss a paper material and consequently need not be of a rigid material as that utilized in connection with an embossing apparatus. Accordingly, as discussed during the personal interview, it is necessary to provide a greater buffer between the sleeve and core during the positioning of the sleeve on the core when positioning a sleeve which is to be utilized in an embossing process. Accordingly, it is respectfully submitted that the Julian reference fails to disclose nor remotely suggest that which is presently set forth by applicant's claimed invention. Further, it is likewise respectfully submitted that applicant's claimed invention as set forth in each of independent claims 1, 33 and 53 is not rendered obvious in view of the teachings of Julian. Consequently, it is respectfully submitted that each of independent claims 1, 33 and 53 as well as those claims which depend therefrom all clearly distinguish over the prior art of record and are in proper condition for allowance.

With respect to independent claim 22, this claim recites a method of forming an embossing roll for embossing a substantially continuous web of sheet material including the steps of providing an elongated core, positioning an elongated sleeve of a less rigid material over the elongated core, providing a three-dimensional laser engraving device having a laser positioned to move in three-dimensions, positioning said elongated core having said sleeve thereon adjacent said laser and three-dimensionally laser engraving an embossing pattern in said elongated sleeve with the embossing pattern including the embossing elements having at least one of curvilinear side walls, spherical surfaces and multiple elevations with respect to a reference surface. Clearly, the prior art of record fails to disclose or remotely suggest the method of three-dimensionally laser engraving embossing pattern in an elongated sleeve

position on a core. As noted during the personal interview, laser engraving embossing patterns in a sleeve is known in the art as appreciated by the Examiner in rejecting claims 10, 11, 23, 24, 41-43, 61, 62, 73 and 74 as being unpatentable over U.S. Patent No. 3,404,254 issued to Jones. However, as discussed during the personal interview, such engraving results in embossing elements similar to that illustrated in Figure 6(a) while embossing elements in accordance with the present invention may exhibit configurations such as that set forth in Figures 6(b) and 7. Accordingly, it is respectfully submitted that applicant's claimed invention as set forth in independent claim 22 as well as those claims which depend therefrom clearly distinguish over the prior art of record.

With reference now to page three of Office Action, claims 3-7, 26-30, 35-40 and 55-59 have been rejected as being unpatentable over Klemmer in view of Julian as applied hereinabove and further in view of U.S. Patent No. 5,266,257 issued to Kildune. This rejection is respectfully traversed in that the patent to Kildune does noting to overcome the aforementioned shortcomings associated with the prior combination.

That is, the patent to Kildune fails to disclose or remotely suggest providing a circumferential groove formed in a surface of the core intersecting each of a plurality of radially extending passages in order to form a greater buffer between the core and sleeve during the positioning and removal of such sleeve. Accordingly, it is respectfully submitted that each of independent claims 1, 33 and 53 as well as those claims which depend therefrom clearly distinguish over the combination proposed by the Examiner.

Likewise, as noted hereinabove, independent claim 22 recites a three-dimensional laser engraving process which is nowhere disclosed in or remotely suggested by the Kildune reference. Accordingly, this claim as well as those

claims which depend therefrom are likewise believed to be in proper condition for allowance.

As noted hereinabove, claims 10, 11, 23, 24, 41-43, 61, 62, 73 and 74 have been rejected as being unpatentable over Klemmer in view of Julian as applied hereinabove and further in view of Jones. Again, this rejection is respectfully traversed in that the patent to Jones fails to disclose nor remotely suggest that which is presently set forth by applicant's claimed invention.

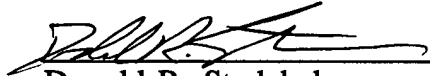
With respect to each of independent claims 1, 33 and 53, the Jones reference clearly fails to overcome the aforementioned shortcomings associated with the prior combination.

Likewise, with respect to independent claim 22, as well as those claims which depend therefrom, the Jones reference clearly fails to disclose nor remotely suggest a three-dimensional laser engraving process as is specifically recited in independent claim 22. Accordingly, it is respectfully submitted that independent claim 22 as well as those claims which depend therefrom are likewise in proper condition for allowance.

Therefore, in view of the foregoing, it is respectfully requested that the rejections of record be reconsidered and withdrawn by the Examiner, that at a minimum, the finality of the previous Office Action be withdrawn, preferably that claims 1-12, 18-22, 25-30, 34-43, 49-63 and 69-72 be allowed and that the application be passed to issue.

Should the Examiner believe a conference would be of benefit in expediting the prosecution of the instant application, he is hereby invited to telephone counsel to arrange such a conference.

Respectfully submitted,



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